

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An elevator control apparatus, comprising:

an abnormality monitoring portion that determines whether there exists an abnormality in an elevator based on information from a sensor ~~by comparing end portions of a speed detection pattern having a speed which decreases the closer a car is to terminal floors with a speed of the car which is detected by the sensor~~, and outputs a signal for stopping [[the]] a car upon detecting the abnormality; [[and]]

a history information recording portion that records a history of information concerning the determination by the abnormality monitoring portion; and

a soundness diagnosing portion that performs an automatic diagnosis on soundness of the abnormality monitoring portion, the history information recording portion recording a result of the diagnosis by the soundness diagnosing portion,

wherein:

the abnormality monitoring portion is a speed monitoring portion that performs a comparison between a detected speed of the car and a set value, sets the set value according to a position of the car, and outputs the signal for stopping the car depending on a result of the comparison; and

the soundness diagnosing portion checks a computing result of the set value with respect to the car position for the diagnosis on the operation of the speed monitoring portion.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) An elevator control apparatus according to claim 1, wherein the history information recording portion records a combination of at least part of data on a position of the car, data on the detected speed of the car, data on the compared portion of the speed detection pattern, and data on the result of the comparing.

5. (Original) An elevator control apparatus according to claim 4, wherein in the history information recording portion, the combination of data is accumulated for each corresponding time.

6. (Canceled).

7. (Original) An elevator control apparatus according to claim 1, wherein the history information recording portion is capable of recording routine inspection history.

8. (Previously Presented) An elevator control apparatus according to claim 1, wherein:

the speed detection pattern includes a constant speed section between the end portions thereof; and

the abnormality monitoring portion compares the end portions and the constant speed section with the speed of the car.

9. (Previously Presented) An elevator control apparatus according to claim 1, further comprising:

a braking device which brakes the car when the signal for stopping the car is output.

10. (Previously Presented) An elevator control apparatus according to claim 1, further comprising:

a second speed detection pattern containing speeds which are higher than the speeds of said speed detection pattern at corresponding car positions,  
wherein the abnormality monitoring portion further determines whether the speed of the car exceeds a speed of a corresponding portion of the second speed detection pattern.

11. (Previously Presented) An elevator control apparatus according to claim 10, further comprising:

a braking device which brakes the car in different amounts, depending on whether the speed of the car is detected to exceed said speed detection pattern or said second speed detection pattern.

12. (Currently Amended) A method, comprising:  
detecting a speed of an elevator car using a sensor;  
detecting an acceleration of the elevator car;  
determining whether there exists an abnormality of the elevator car ~~by comparing end portions of a speed detection pattern having a speed which decreases the closer the elevator car is to terminal floors with the speed of the elevator car which is detected by the sensor;~~ and  
outputting a signal for stopping the elevator car upon detecting the abnormality;  
braking the elevator car using the signal for stopping the elevator car; ~~[[and]]~~  
recording a history of information the abnormality; and  
a soundness diagnosing portion that performs an automatic diagnosis on soundness of the abnormality monitoring portion, the history information recording portion recording a result of the diagnosis by the soundness diagnosing portion,

wherein:

the abnormality monitoring portion is a speed monitoring portion that performs a comparison between a detected speed of the elevator car and a set value, sets the set value according to a position of the car, and outputs the signal for stopping the elevator car depending on a result of the comparison; and

the soundness diagnosing portion checks a computing result of the set value with respect to the car position for the diagnosis on the operation of the speed monitoring portion.

13. (Currently Amended) A method according to claim 12, wherein:

wherein the abnormality monitoring portion further determines whether the speed of the elevator car exceeds a speed of a corresponding portion of a second speed detection pattern, the second speed detection pattern containing speeds which are higher than the speeds of said speed detection pattern at corresponding elevator car positions.

14. (Currently Amended) A method according to claim 13, wherein:

the braking of the elevator car brakes the elevator car in different amounts, depending on whether the speed of the elevator car is detected to exceed said speed detection pattern or said second speed detection pattern.

15. (New) An elevator control apparatus, comprising:

an abnormality monitoring portion that determines whether there exists an abnormality in an elevator based on information from a sensor, and outputs a signal for stopping a car upon detecting the abnormality;

a history information recording portion that records a history of information concerning the determination by the abnormality monitoring portion; and

a soundness diagnosing portion that performs an automatic diagnosis on soundness of the abnormality monitoring portion, the history information recording portion recording a result of the diagnosis by the soundness diagnosing portion,

wherein:

the abnormality monitoring portion is a speed monitoring portion that performs a comparison between a detected speed of the car and a set value, and outputs the signal for stopping the car to a safety device mounted to the car depending on a result of the comparison, the safety device including a braking member and an actuator portion for moving the braking member, the braking member being capable of moving into and away from contact with a car guide rail, the safety device having a self-diagnosis function; and

the soundness diagnosing portion checks the operation of the self-diagnosis of the safety device.